

**Remarks**

Remarks responsive to the October 19, 2004 Office Action follow. Quotations of relevant comments from the Examiner (presented in small bold-faced type) precede applicant's remarks.

**Allowable Subject Matter**

**Claims 25, 26, 12, 13, 17, 18, 21 and 22 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.**

The undersigned thanks the Examiner for the indication of allowable subject matter. However, for reasons explained below, it is respectfully submitted that the indicated claims are allowable in dependent form as they depend from allowable base claims.

**Claim Rejections - 35 USC § 102**

**Claims 1-11, 14-16, 19-20, 23-24 rejected under 35 U.S.C. 102(b) as being anticipated by Micro Office 2000 Professional Edition 1999 (hereinafter referred as a 2000).**

The Examiner's rejection is respectfully traversed. The present application discloses and claims a collaborative working invention whereby users can work concurrently on a model and, when a change to the model is made by a user at a first work station, that change is propagated to other work stations at substantially the same time as the change was made at the first work station. Implementations of this invention can allow, e.g., users collaboratively working on the model to retain a common view of the model synchronized such that all users can be viewing the common view at the same time and may see updates to the model as they occur. Contrary to the Examiner's suggestion, an ability to simultaneously modify a model as disclosed and claimed in the present application simply does not exist in the cited prior art's disclosure concerning Office 2000 or, in particular, the cited art's disclosure concerning Word 2000. In fact, nowhere does the cited Office 2000 art disclose or suggest that users can collaboratively change a model and those

changes are propagated to other work stations by the transmission of change commands as recited in the claims of the present application.

Word 2000 is understood as offering a much simpler form of collaboration via “tracked changes.” The collaborative work feature of Word 2000 is understood as allowing user’s to make changes to the document by taking turns editing the document and, during each user’s “turn” to make changes, other users cannot be simultaneously modifying a document such that the users can see changes from all other users as they are being made (i.e., the change information being propagated between workstations concurrent with the making of the changes by each user). In other words, a process such as the following is supported in the Word 2000 environment:

1. A first user opens and works on an existing document using the “track changes” mode of operation. Changes made by the user are “tracked” and associated with the user (e.g., changes made by the first user can be indicated by a particular display color, e.g., red text). During this process, only the first user is making changes to the document.
2. After the first user makes changes to the document, the user must close the document saving all changes into the document file. The user may then circulate the document to a second user (e.g., by email or by placing the document in a shared storage device).
3. The second user may then open the document and make additional changes. While the second user is making changes to the document, other users are not permitted to make changes to that document (and, as understood by the undersigned, other users would be unable to view changes made by the second user as the user makes those changes). Here, again, Word 2000 would associate changes made by the second user with that user (e.g., by using a second color such as green to indicate changes from the second user). As the second user is making changes to the document, the changes previously made to the document and previously saved in the document by other users would be visible (changes from each such user visible in a user-associated color), but the other users would not be

able to continue making changes visible to that second user as the second user edits the document.

4. The second user may then save the document, close it, and circulate it to other users who may made additional modification in sequence.

Thus, what Word 2000 allows is for multiple users to each edit a document in a sequential fashion, rather than the concurrent fashion of the claimed invention.<sup>1</sup> In other words, what Word 2000 users can do is to individually and separately modify and track the changes to a document, the user can then save said document and send it to other users. Other users can subsequently open the document and individually work on the document to review changes previously and separately made by other users and the user can then make any additional desired amendments to the document. This is what is referred to on page 270 where one can read "As other people open the document...". The Examiner is also referred to the "Routing slip" feature of Word 2000. The Routing Slip feature provides a capability whereby once a user has completed a sequence of modifications to a document, the user may send it to other reviewers for their review and editing.

Thus, the Word 2000 document cited by the Examiner does not disclose or suggest the ability to work simultaneously on the same Word document.

2. Claims 1, 8, 14, 19 and 23-24.

Examiner compares the teaching of Office 2000 against the broad claim language of the present invention. Examiner

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<sup>1</sup> The undersigned notes that current versions of Word (i.e., Word 2003) allow a form of concurrent editing in which multiple copies of a document may be distributed to users and changes made to those multiple copies can be merged back into a single document. The undersigned has not found any indication that this type of concurrent editing was available in Word 2000. In any case, even if such a capability were present, this form of collaborative editing is outside the scope of the claims as it does not provide for the transmission of change information as recited by, e.g., claim 1 together with other claim elements providing for a simultaneous modification of a model.

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sees the Office 2000 as a tool relates to the field computer-aided design(CAD), computer aided manufacturing (CAM), computer aided engineering (CAE), product lifecycle management (PLM), and product data management (PDM) systems.

The undersigned respectfully submits that Office 2000 and, more particularly, Word 2000 (which is the specific Office 2000 tool cited by the Examiner for a purported teaching of a tool providing for simultaneous modification of a model) is not a CAD or a PLM tool. Generally speaking, a CAD tool is a tool for a creation of a model whereby relationships between parts of the model can be edited and modified and associations between the parts specified. A PLM tool, on the other hand, is generally used to deal with changes to a product over its life cycle. It is not clear how the examiner equates Word 2000, a word processor, with a CAD or PLM tool providing for simultaneous modification of a model. It is respectfully requested that the Examiner further explain and provide objective evidence demonstrating that one of reasonable skill in the art at the time of the filing of this invention would have equated a word processing tool with the CAD/CAM tool recited in, e.g., claim 8 of the present application.

It is noted that the present application does contain a number of broader claims (e.g., claim 1) which are not limited to CAD/CAM tools and, accordingly, the undersigned does not presently object to the Examiner's use of word processing technology as prior art with respect to those claims (however, as further explained herein, the particular word processing technology selected by the Examiner does not teach or suggestion the inventions claimed herein).

A computer system operation method for use in a system comprised of a plurality of workstations arranged in a peer-to-peer architecture, said method providing a means for allowing multiple users simultaneously to modify a model of an object at separate workstations, such that any modification made at any workstation is duplicated at each other workstation in the system, the method comprising: 2000 on page 265 chapter 12 teaches the multi-user or a workgroup that uses Word application. 2000 on pages 269-271 teaches tracking changes to a document (a model of an object), the document could be text, flow chart design and etc. 2000 on page 270 teaches up to eight authors or users can work on one document. Examiner's interpretation for p2p

architecture: type of network in which each workstation has equivalent capabilities and responsibilities. 2000 on page 282 teaches routing documents as being connected to your colleagues by a local network or electronic mail. It is well known that a plurality of workstations makes up a network. Receiving at a first workstation input from a user specifying a modification of first data comprising a representation of a model of an object; Examiner interpretation: a workstation able to transmit and receive data with or without a modification of first version of the document, 2000 on page 275 teaches adding comments using document summary information in another words translating said input into a command specifying the portion of the first data to be modified, and the modification to be made; 2000 on page 281 step 4 and also in fig. 12.8 teaches the modification first data by first workstation in accordance with command (could be editing the document) to effect a change in the model as represented by first data; a workstation able to transmit and receive data with or without a modification of first version of the document in another words transmitting said command via a network to other workstations in the system; Another user at a different location (a second workstation) processes the document. By changing the first document at the first workstation and sending it to the second workstation for the second user to modify the proper modification, which cover the following claim limitations: modifying second data comprising a representation of the model of the object, the second data being modified by the second workstation in accordance with said command to effect the change in the model represented by said second data.

The Examiner's above-recited reasons for claim rejection are respectfully traversed. Among the reasons for this traversal is that the Examiner's "broad" reading of claim language is improper in that it overlooks claim elements and, accordingly, does not support a § 102 rejection. For example, claim 1 specifically recites that user input is translated "into a command specifying the portion of the first data to be modified, and the modification to be made" that that command is applied by the first workstation to effect a change in the model as represented by said first data ("modifying said first data by said first workstation in accordance with said command to effect a change in the model") that the modification command is then transmitted to a second workstation and "second data" being modified at the "second workstation in accordance with said command to effect the change in the model" The Examiner's statement that the cited Word 2000 document discloses such features is simply not accurate. What Word allows is for a user to send an entire

modified document to another user rather than, as recited by claim 1, a “command specifying the portion of the first data to be modified.” In any even, the claims have been amended to further clarify this command sending mechanism and to further clarify that the claimed invention results in substantially simultaneous updating of model data at two separate workstations.

The Examiner’s rejection of claims 1, 8, 14, 19 and 23-24 is also traversed for the reason that the Examiner has failed to address the elements of each claim. It is respectfully submitted that the independent claims do include different claim elements and, accordingly, the independent claims must each be properly examined and rejected or allowed. The Examiner’s analysis of claim 1 is not sufficient. For example:

- Claim 14 recites “transmitting said command via said network to other workstations in the system to instruct said other workstations to modify duplicate copies of said first data so as to maintain a consistent representation of the model by the first data and by the duplicate copies of said first data.” This element was not recited in claim 1 and the Examiner has simply failed to show how the cited Office 2000 reference discloses this claim element. It is respectfully submitted that this claim element is simply not disclosed in the cited reference.
- Claim 19 recites “transmitting said command via a network to other CAD/CAM devices for receipt by a peer CAD system program executing at said other CAD/CAM device to instruct the peer CAD system program to alter a copy of said first data comprising a duplicated stored representation of the model such that synchronization of the model as represented by the first data and as represented by the copy of said first data is maintained.” This element was not recited in claim 1 and the Examiner has simply

failed to show how the cited Office 2000 reference discloses this claim element. It is respectfully submitted that this claim element is simply not disclosed in the cited reference.

- Claim 23 recites "transmitting said command via a network to other workstations on the network to instruct peer application programs executing said other workstations to each alter a copy of said first data comprising a duplicated stored representation of the model such that synchronization of the model as represented by the first data and as represented by the copies of said first data is maintained." This element was not recited in claim 1 and the Examiner has simply failed to show how the cited Office 2000 reference discloses this claim element. It is respectfully submitted that this claim element is simply not disclosed in the cited reference.

Furthermore, the undersigned respectfully requests clarification of the Examiner's use of the phrase "with our without a modification of the first version of the document," (a phrase which has been used multiple times in the Examiner's reasons for rejection). By the use of this phrase, is the Examiner somehow suggesting that he has adopted a claim interpretation in which the first document remains unmodified? Such an interpretation would clearly be contrary to the plain language of the claims and any rejection dependent on such an interpretation is improper as § 102 requires a showing that what is claimed is in the prior art. If the Examiner is applying such a claim interpretation, further explanation of the Examiner's basis for doing so in light of the contrary claim language is respectfully requested so that the undersigned can adequately understand and address the Examiner's rejection. If the Examiner intended some other meaning, the undersigned respectfully requests that the intended meaning be explained.

3.               Claims 2, 9, 10, 15 and 16.

2000 on page 280 in fig. 12.7 shows to create backup copy and also in fig. 12.4 shows another feature modeler. On page 282 shows routing document on a network that considers

as a geometric modeler. The computer system operation method of claim 1, wherein said plurality of workstations each run applications comprising a distributor component, a feature modeler, and a geometric modeler.

4.                   **Claim 3.**

See rejection of claim 2. The computer system operation method of claim 1, wherein said plurality of workstations each run applications comprising a distributor component, and a feature modeler.

5.                   **Claim 4.**

The Microsoft office 2000 professional edition has the same features on each workstation. The computer system operation method of claim 2, wherein said distributor component, feature modeler, and geometric modeler on each of said plurality of workstations are the same.

It is respectfully submitted that the Examiner's interpretation of, inter alia, the feature modeler and geometric modeler is not consistent with what has been disclosed in the present application. These concepts are well known in the CAD/CAM fields and are explained in the application at, e.g., page 3, §3 to page 4, §1. The Examiner's suggestion that an ability to make a back up copy (12.7) or that figure 12.4 can somehow anticipate a feature modeler and the suggestion that routing a document somehow anticipates a geometric modeler is not understood in light of the standard usage of these terms in the art.

Furthermore, the Examiner is respectfully reminded of the requirements of the Manual of Patent Examining Procedure § 706.07(d) which requires that grounds for rejection "must be clearly developed to such an extent that applicant may readily judge the advisability of an appeal." It is respectfully submitted that the Examiner's rejection has not met this standard as there are numerous areas in which the Examiner's rejection does not make clear the basis for rejection. With this in mind, the undersigned respectfully request that the examiner explain the following:

1. What feature of Word 2000 is the Examiner equating to a "feature modeler"? What does the examiner contend is the way in which any such Word "feature modeler" operates? In what way does the Examiner contend that Word's "feature modeler" relates to that which is disclosed and claimed in the present application?

2. What feature of Word 2000 is the Examiner equating to a “distributor component”? What does the examiner contend is the way in which any such Word “distributor component” operates? In what way does the Examiner contend that that “distributor component” relates to what is disclosed and claimed in the present application?

6.           Claims 5, 11.

2000 on page 280 in fig. 12.7 illustrates file sharing options. And also on page 283 in fig. 12.9 illustrates the routing slip. The computer system operation method of claim 4, wherein said geometric modeler on each of said plurality of workstations employs persistent generic naming.

It is respectfully submitted that here, again, the Examiner fails to explain how Word 2000 discloses persistent generic naming. For an explanation of persistent generic naming, the Examiner is referred to, e.g., page 13 et seq. of the disclosure where the concept of persistent geometric naming is explained. For example, on page 13 it is explained that persistent generic naming “refers to an aspect of some geometric modelers wherein once the generic name server assigns a generic name to a cell, that particular name is thereafter always used to refer to the cell. The generic name does not change when the model is modified if persistent generic naming is used. This is the case even if the cell ceases to be a part of the model, which may occur, for example, if the model is changed in such a way as to eliminate the cell. When persistent generic naming is used, there is no confusion at a workstation when a command is received. The command can be executed without need for translation since the generic names of all of the cells of the model are the same on both workstations. In the preferred embodiment of the invention, all of the workstations have the same geometric modeler and the geometric modeler uses persistent generic naming.”

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Pursuant to MPEP § 706.07(d), the undersigned requests that the Examiner more fully explain the following:

3. What feature of Word 2000 is the Examiner equating to a “distributor component”?
4. Where in the cited art is it disclosed that the distributor component employs persistent generic naming to name cells of a model?
5. Where in the cited art is it disclosed that there is a generic naming of cells of the model?
6. Where in the cited art is it disclosed that there is persistence of generic names of cells?

7. **Claims 6, 20.**

2000 on page 280 in fig. 12.7 illustrates the step of input comprises one or more constraints relating to cell information, said method further comprising: for each constraint, determining which cells of the model meet the requirement of the constraint; and generating a list of cells meeting all of the requirements of the constraints.

Here, again, the Examiner fails to explain what the Examiner believes is a cell of the model.

Pursuant to MPEP § 706.07(d), the undersigned requests that the Examiner more fully explain:

7. What Word 2000 feature is it that the examiner equates to a “cell of the model” (i.e., in what way does a Word document have a “cell”)?
8. In what way does Word 2000 process constraints and generate a list of cells that meet all of the required constraints? Where is a list of cells of the model meeting constraint requirements shown in the cited art?

8. **Claim 7.**

2000 on page 277 in fig. 12.6 tabs general, summary, statistics, contents and custom covers the step of: a) constraints relating to cell dimension; b) constraints relating to the topology of a cell; c) constraints relating to the history of the model evolution; d) constraints relating to specific attributes of a cell; and e) constraints relating to geometrical indications of a cell.

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Pursuant to MPEP § 706.07(d), the undersigned requests that the Examiner more fully explain:

9. What does the Examiner contend is a Word 2000 constraint relating to cell dimension? In what way does the cited document teach or suggest that this constraint is processed to generate a list of cells meeting all requirements of the constraint as recited by, e.g., claim 6?
10. What does the Examiner contend is a Word 2000 constraint relating to topology of a cell? In what way does the cited document teach or suggest that this constraint is processed to generate a list of cells meeting all requirements of the constraint as recited by, e.g., claim 6?
11. In what way does Word 2000 have cells with topology information as part of a model? In what way does the cited document teach or suggest that this constraint is processed to generate a list of cells meeting all requirements of the constraint as recited by, e.g., claim 6?
12. What does the Examiner contend is a Word 2000 constraint relating to the history of the model information? In what way does the cited document teach or suggest that this constraint is processed to generate a list of cells meeting all requirements of the constraint as recited by, e.g., claim 6?
13. What does the Examiner contend is a Word 2000 constraint relating to specific attributes of a cell in a Word model? In what way does the cited document teach or suggest that this constraint is processed to generate a list of cells meeting all requirements of the constraint as recited by, e.g., claim 6?
14. What does the Examiner contend is a Word 2000 constraint relating to geometrical indications of a cell of a Word “model”? In what way does the cited document teach or suggest that this constraint is processed to generate a list of cells meeting all requirements of the constraint as recited by, e.g., claim 6?

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The undersigned respectfully submits that, if the Examiner continues in the rejection of claims of the present application, then pursuant to the Examiner's obligations under the MPEP (see, e.g., MPEP § 706.07(d)), answers to the above-cited questions are required so that the undersigned may fully understand the Examiner's reasons for rejection so that a response fully addressing the Examiner's reasons for rejection may be provided.

**Conclusion**

Claims 1, 8, 14, 19 and 23 have been amended.

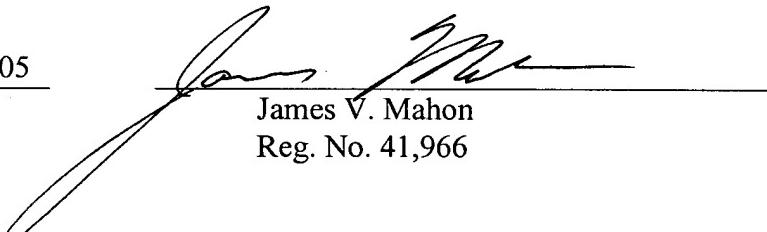
Claims 1-26 are now pending and are believed to be in condition for allowance.

No new matter has been added.

Please apply any credits or excess charges to our deposit account number 50-0521.

Respectfully submitted,

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